Phytochemical and Antimicrobial Activity of *Salvadora persica* (Miswak) against Some Animal Pathogens.
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**BACKGROUND**

One of the common problems in the medical world, spreading of bacterial resistance against antibiotics, *Salvadora persica* has biological active compounds and used in traditional medicine, it seems that this plant contain considerable antimicrobial capacity.

**OBJECTIVE**

The aim of this study is to investigate the antimicrobial activity of *Salvadora persica* aqueous extracts on some medically important animal pathogens and to determine some phytochemical compounds.

**INTRODUCTION**

In the present time, due to a large number of chemical antibiotic were costly and exhibit side effect therefore, the award people are turning towards herbal antimicrobial(Abd El-Latif, et al,2002). Various components of *Salvadora persica* have been reported to have beneficial biological properties, including significant antibacterial and antifungal activity(Al-Bagieh, 1994. ). Prophet Mohammed (PBUH) recommended Muslims to use Siwak five times a day, as he said “If I had not found it hard for followers or the people, I would have ordered them to clean their teeth with Miswak prior to each pray” (Al-Bukhari, 2004).

**MATERIALS AND METHODS**

**Collection of plant materials:** (Miswak) were obtained from the local market at Cairo City, Egypt, 2014.

**Aqueous extraction:** Distilled water and dried plants was boiled, mixed by the blender, filtered and kept at 4°C until to be use.

**Preparation of inoculums:** The strains of bacteria (*Staphylococcus epidermis, Escherichia coli, Streptococcus pyogenes, Pseudomonas aerogenes, Salmonella typhimurium, Enterococcus, Bacillus cereus, Klebsiella pneumoniae*) & fungi (*C. albicans*) were isolated from large animals and poultry farms on the outskirts of Cairo then inoculated on Sabaroud dextrose agar.

**4-Antimicrobial screening:** The agar well diffusion method was used for the determination of antibacterial activity of *Salvadora persica* (Miswak) aqueous extracts.[1]

**5- Phytochemical Tests:**

- **Tannins Test and Alkaloids Test:** was done according to [2].
- **Saponins Test, Flavonoids Test and Glycosides Test:** were done according to [3]. All chemicals used (Purchased from Witan – Biolife Company produced by Jalil Medicals Company).

**THE RESULTS CONT.**

**Table 1:** Antimicrobial activity of *Salvadora persica* (Miswak) aqueous extract against some animal pathogen in (mm).

<table>
<thead>
<tr>
<th>Type of extract</th>
<th>Type of M.O.</th>
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<tr>
<td>A.E</td>
<td>C.</td>
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<td>E.</td>
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<td>S.</td>
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<td>K.</td>
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<td>S.p.</td>
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**Table 2:** The phytochemical compounds in *Salvadora persica* (Miswak) aqueous extract

+ (contain this phytochemical compound)

An abbreviations
- A.E= Aqueous extract, C= ciprofloxacin, B= Bacitracin, N= Nystatin (control – ve was distilled water all =0)

**CONCLUSIONS**

So it could be concluded that the *S. persica* extract exhibited remarkable antimicrobial activity against microbial pathogens and can be introduced as an alternative to chemical antimicrobial drugs, but required wider investigation.

**REFERENCES**


**CONTACT INFORMATION**

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